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Implementation of Newborn Hepatitis B Vaccination — Worldwide, 2006

Globally, hepatitis B virus (HBV) infections are a major cause of cirrhosis and liver cancer and result in an estimated 620,000 deaths annually (*1*). In 1992, the World Health Organization (WHO) set a goal for all countries to introduce hepatitis B (HepB) vaccine into national routine infant immunization programs by 1997 (*2*). In countries where a high percentage of HBV infections are acquired perinatally (where general population prevalence of chronic HBV infection is ≥8%), WHO recommends administering the first HepB vaccine dose <24 hours after birth to prevent perinatal HBV transmission (*3*). To assess implementation of newborn HepB vaccination, the most recently available data were examined from the Joint Reporting Form used by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) to track worldwide vaccine coverage for WHO-recommended infant immunizations (*4*). In 2006, a total of 162 (84%) of 193 countries had introduced HepB vaccine into their national infant immunization schedules. Among the 193 countries, 81 (42%) reported using a schedule with a HepB vaccine birth dose (defined as a dose administered within 24 hours of birth). Worldwide, 27% of newborns received a HepB vaccine birth dose in 2006. In the 87 countries with ≥8% chronic HBV infection prevalence (*5*), HepB vaccine birth dose coverage was 36%. These findings highlight the global need to implement this key hepatitis B prevention strategy more widely.

Since 1998, WHO and UNICEF have used the Joint Reporting Form to collect information annually from WHO member states on coverage and indicators of immunization system performance for all WHO-recommended infant vaccines (*4*). For HepB vaccine, information is collected about the schedule used, the number of infants receiving the recommended 3 doses of vaccine, and (for those countries where the national immunization schedule includes a HepB vaccine birth dose) the administrative coverage of HepB vaccine birth dose.

As of 2006, 81 (42%) of 193 WHO member states indicated that a HepB vaccine birth dose was included in the national infant immunization schedule. Of the 87 countries where chronic HBV infection prevalence has been high historically (≥8%), 38 (44%) reported including a HepB vaccine birth dose in their immunization schedules (Table 1). Of the 135.0 million infants born worldwide in 2006, 62.7 million infants were born in countries where chronic HBV infection prevalence has been high historically.

Global and regional HepB vaccine birth dose coverage were calculated using reported coverage figures from the Joint Reporting Form and estimates of the number of live births (*6*). In this analysis, countries that did not report birth dose coverage on the Joint Reporting Form were assumed to have 0% birth dose coverage. Among the 81 countries reporting a HepB vaccine birth dose in their immunization schedules, 22 (27%) did not report birth dose coverage data. As a result, 11%–20% of the birth cohort might have received a HepB vaccine birth dose but was assumed to have 0% coverage because of lack of reporting. Birth dose coverage worldwide was 27% and varied widely by region, from 3% to 71% (Table 2). Birth dose coverage for countries with ≥8% chronic HBV infection prevalence was 36% (range by region: 1%–92%), and for countries with <8% prevalence was 20% (range by region: 0%–97%) (Table 2). However, in response to an open-ended Joint Reporting Form question regarding which vaccination schedule was used, several member states indicated that a first dose administered beyond 24 hours of birth still could be considered a birth dose.

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Editorial Note: This report presents the first analysis of WHO-UNICEF Joint Reporting Form data that estimates worldwide HepB vaccine birth dose coverage. HepB vaccine birth dose coverage during 2006 was 27% globally and 36% for children born in countries where chronic HBV infection has been highly endemic (≥8%). The relatively low coverage is consistent with survey data from several countries (*7*) and suggests that program performance for newborn HepB vaccination needs improvement.

Two major modes of HBV transmission occur during infancy: 1) from an infected mother to her newborn during delivery, and 2) from an infected household contact to the infant. Perinatal HBV transmission accounts for an estimated 21% of HBV-related deaths globally and 13%–26% regionally (*1*). HepB vaccine is 70%–95% effective as postexposure prophylaxis in preventing mother-to-infant HBV transmission when the first dose is administered within 24 hours after birth (*8*). HepB vaccination of newborns also provides early preexposure protection to infants born to uninfected women during a period when, if HBV exposure were to occur, the risk for developing chronic HBV infection is greatest (i.e., during the first year of life). Infants who become HBV infected have an approximately 90% risk for developing chronic HBV infection, and when chronically infected, have a 25% risk for dying prematurely from cirrhosis or liver cancer. Thus, newborn HepB immunization is a key intervention to prevent perinatal HBV transmission and a critical strategy to reduce the global morbidity and mortality associated with hepatitis B.

When introducing HepB vaccine into infant immunization programs, national policy makers must decide when to begin the HepB vaccine series: 1) at birth for all infants, 2) at birth, but targeted only to newborns of HBV-infected women, or 3) at the same time in the immunization schedule as other vaccines are administered to all infants (e.g., at 6 weeks, when national immunization programs in most developing countries initiate administration of other vaccines to infants) but at a time that is too late to prevent perinatal HBV infection. Administering a HepB vaccine birth dose only to newborns of HBV-infected women usually is not feasible in developing countries where hepatitis B is highly endemic (*3*), is a practice that is prone to error and results in missed postexposure prophylaxis of infants (even in countries where testing and identifying infected women during pregnancy is well established) (*8*), and fails to provide early preexposure protection to newborns of uninfected women who might have household contacts who are infected.

TABLE 1. Number and percentage of World Health Organization (WHO) member states with hepatitis B (HepB) vaccination of newborns, by prevalence of historic chronic hepatitis B virus (HBV) infection — WHO and United Nations Children's Fund, worldwide, 2006

Chronic HBV prevalence	No. of births	No. of countries	Countries with HepB vaccine in schedule		Countries with HepB vaccine birth dose in schedule	
			No.	(%)	No.	(%)
High (≥8%)	62,658,651	87	73	(84)	38	(44)
Intermediate (2%–8%)	58,353,308	62	56	(90)	33	(53)
Low (<2%)	14,004,025	44	34	(77)	10	(23)
Total	**135,015,984**	**193**	**163**	**(84)**	**81**	**(42)**

TABLE 2. Implementation and coverage of newborn hepatitis B (HepB) vaccination globally and in World Health Organization (WHO) member states with historically high (≥8%) and historically intermediate or low (<8%) prevalence of chronic hepatitis B virus (HBV) infection, by WHO region — WHO and United Nations Children's Fund, worldwide, 2006

WHO region	WHO member states									
	All				With ≥8% chronic HBV prevalence			With <8% chronic HBV prevalence		
	No.	HepB vaccine in schedule	HepB vaccine birth dose in schedule	Estimated birth dose coverage (%)	No.	HepB vaccine birth dose in schedule	Estimated birth dose coverage (%)	No.	HepB vaccine birth dose in schedule	Estimated birth dose coverage (%)
African	46	34	5	3	45	4	1	1	1	97
Americas	35	34	12	39	0	0	NA*	35	12	39
Eastern Mediterranean	21	19	11	40	4	1	25	17	10	43
European	53	41	27	30	10	9	92	43	18	20
South-East Asian	11	9	3	8	5	2	46	6	1	0
Western Pacific	27	26	23	71	23	22	75	4	1	26
Total	**193**	**163**	**81**	**27**	**87**	**38**	**36**	**106**	**43**	**20**

* Not applicable.

In the WHO Western Pacific region (where hepatitis B is highly endemic in many countries), 23 of 26 countries have introduced HepB vaccine starting at birth. However, countries with ≥8% endemic chronic HBV infection in other regions might not have introduced a HepB vaccine birth dose because disease burden from perinatal HBV transmission was not believed to be significant or because of challenges in implementing the birth dose (*1,9*).

Challenges to administering HepB vaccine to newborns within 24 hours after birth can be logistical and financial. First, many infants, especially in remote or poor areas, are born at home and do not have access at birth to skilled attendants who can administer vaccinations. Increasing the number of infants born in facilities or attended by trained health staff would improve birth dose coverage. Second, infant vaccinations usually are administered by vaccination providers in well-baby clinics or other outpatient health settings or during outreach immunization sessions in the community, whereas care of the mothers during delivery and of infants immediately after birth often is provided by maternal health workers, so coordination of these two types of workers is needed. Third, in many parts of the world, vaccines are transported and delivered in cold storage boxes at monthly or even longer intervals from a central source to locations where they will be administered and can only be stored for several days. As a result, HepB vaccine might not be available when infants are born at more remote facilities. Improving the range of the cold storage delivery chain and exploring options for making vaccine available outside that range are needed. Fourth, many developing countries have modified their immunization schedules to include new multivalent vaccines (e.g., combined *Haemophilus influenzae* type b and HepB vaccine) that cannot be administered to newborns. These vaccines provide antigens against two or more diseases and are supported by international donors, but the countries must rely on their own limited resources to purchase separately the monovalent HepB vaccine necessary for the HepB vaccine birth dose. Finally, awareness among providers and parents about the importance of administering HepB vaccine within 24 hours of birth often is lacking, so health promotion and training are needed (*9,10*).

The findings in this report are subject to at least two limitations. First, coverage data were missing from 27% of countries that reported having HepB vaccine birth dose in their immunization schedules, and for which an assumption was made of 0% birth dose coverage. Second, HepB vaccine birth dose coverage reported by countries sometimes might have included doses administered after 24 hours of birth, as indicated by the response on the Joint Reporting Form from several countries that a first dose administered beyond 24 hours of birth would be considered a birth dose. This lack of understanding as to

what constitutes an appropriate birth dose of HepB vaccine might reflect the fact that the term "birth dose" also is used widely for bacille Calmette-Guérin vaccine administration a few weeks after birth, and for oral poliovirus vaccine administration several days after birth. Data on HepB vaccine birth dose coverage from the Joint Reporting Form could be validated by using national coverage surveys that compare date of birth with date of administration of the first HepB vaccine dose for infants.

More complete implementation of routine newborn HepB vaccination globally would reduce the substantial morbidity and mortality caused by perinatally acquired HBV infection. Newborn HepB vaccination is of highest priority in highly endemic areas where the contribution of perinatal transmission to the overall disease burden is greatest. However, even in countries with <8% chronic HBV infection prevalence, newborn HepB vaccination can be an important hepatitis B control strategy. Disease modeling suggests that implementing HepB vaccine birth dose in regions with relatively low prevalence of chronic HBV infection, such as the Americas or Europe, might reduce HBV mortality by an additional 10%–20% compared with following a HepB vaccination schedule without a birth dose (*1*). For this reason, a substantial number of countries in areas with intermediate or low hepatitis B endemicity have implemented newborn HepB vaccination.

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Continued Shortage of *Haemophilus influenzae* Type b (Hib) Conjugate Vaccines and Potential Implications for Hib Surveillance — United States, 2008

In December 2007, Merck & Co., Inc. (West Point, Pennsylvania) announced a voluntary recall of certain lots of two *Haemophilus influenzae* type b (Hib) conjugate vaccines, PedvaxHIB® (monovalent Hib vaccine) and Comvax® (Hib-HepB vaccine) and suspended production of both vaccines, disrupting the U.S. supply of Hib vaccine (*1*). When the recall was announced, Merck projected restoration of these vaccines to the U.S. market in late 2008. To ensure that enough vaccine would be available for all U.S. children to complete the primary Hib vaccination series, on December 18, 2007, CDC recommended that providers defer the booster dose of Hib vaccine (scheduled for administration at age 12–15 months) for all children except those at increased risk for invasive Hib disease (*1*). On October 17, 2008, Merck announced that restoration of the two vaccines to the market would be delayed until mid-2009. Because the continued delay might result in an increase in Hib disease, national surveillance for invasive Hib disease has become particularly important. To assess the current status of surveillance for Hib nationally, CDC reviewed 4,657 cases of invasive *H. influenzae* infection reported during January 2007–October 2008, including 748 cases among children aged <5 years. Of those 748 cases, 45 (6.0%) were Hib (serotype b), and 278 (37.2%) were missing serotype information. The continued vaccine shortage heightens the need for timely reporting and investigation of *H. influenzae* cases and accurate serotyping of all invasive *H. influenzae* isolates in children aged <5 years.

H. influenzae disease can be caused by any of six *H. influenzae* serotypes (a, b, c, d, e, and f) or by nontypeables. Until 1988, when Hib vaccine was introduced, serotype b caused approximately 95% of cases of *H. influenzae* invasive disease among children aged <5 years (*2*); after introduction of the vaccine, during 1989–1995, the incidence of Hib disease decreased 95% among children in that age group (*3*). Cases of invasive *H. influenzae* are reported to CDC weekly from all 50 states, the District of Columbia (DC), and New York City, through the National Notifiable Diseases Surveillance System (NNDSS). All 50 states require reporting of Hib cases (defined in NNDSS as isolation of Hib from a normally sterile site) in children aged <5 years; however, reporting requirements vary for other serotypes of *H. influenzae* and for Hib in other age groups.

CDC also coordinates the Active Bacterial Core surveillance (ABCs) system, which provides active, population-based, laboratory-based surveillance for invasive bacterial diseases, including *H. influenzae* (*4*). ABCs conducts surveillance in all or parts of 10 states,* accounting for 12% of the United States population. For ABCs, a case of *H. influenzae* disease is defined as isolation of *H. influenzae* from a normally sterile site in a resident of the surveillance area.

For this analysis, cases of *H. influenzae* disease reported to NNDSS during January 2007–October 2008 were combined with cases reported through ABCs; cases were matched by date of birth and county of residence, and duplicates were excluded. Completeness of serotype reporting was assessed for all of the *H. influenzae* reports. Isolates were classified as b, non-b (other serotypes and nontypeables), or as having missing serotype information. Serotype reporting was assessed for patients of all ages and for those patients aged <5 years.

During January 2007–October 2008, a total of 4,657 cases of invasive *H. influenzae* disease were reported to CDC; 127 cases (2.7%) were type b, 2,267 (48.7%) were non-b, and 2,263 (48.6%) were missing serotype information. Among children aged <5 years, 748 *H. influenzae* cases were reported; 45 (6.0%) were type b, 425 (56.8%) were non-b, and 278 (37.2%) were missing serotype information. Based on the merged NNDSS/ABCs data, the average annual rate of invasive Hib disease reported in children aged <5 years, during January 2007–October 2008, was 0.12 cases per 100,000 children per year. During 2007, the annual rate was 0.11 cases per 100,000 children aged <5 years, and during January–October 2008, the annual rate was 0.13 cases per 100,000.

Overall, 49 of 52 jurisdictions (50 states, DC, and New York City) reported at least one case of *H. influenzae* to NNDSS or ABCs in a child aged <5 years. Of the 49 jurisdictions, a total of 19 (38.8%) were missing serotype data for >50% of reported cases, 16 (32.7%) were missing serotype data for >75% of reported cases, and 14 (28.6%) were missing serotype data for all reported cases (Figure). Among the five jurisdictions entirely covered by ABCs, four had no reported cases with missing serotype data. Among the five jurisdictions partially covered by ABCs, the median percentage of cases with missing data was 21.7%; among the 39 remaining jurisdictions not participating in ABCs, the median was 50.0% (Figure).

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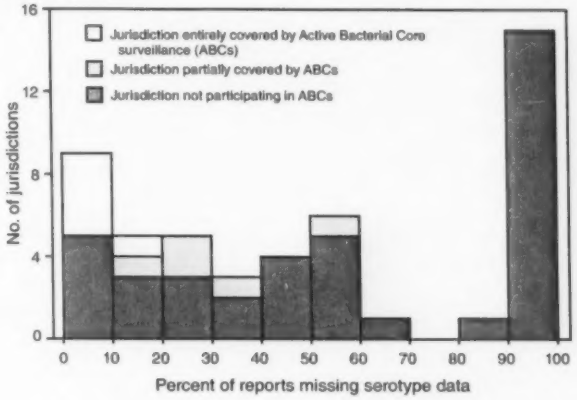
* Five states are entirely covered by ABCs for *H. influenzae* disease: Connecticut, Maryland, Minnesota, New Mexico, and Oregon. Five other states are partially covered by ABCs: California (three-county San Francisco Bay area), Colorado (five-county Denver area), Georgia (20-county Atlanta area), New York (15 counties), and Tennessee (11 counties).

FIGURE. Number of jurisdictions (N = 49*) reporting cases of invasive *Haemophilus influenzae* disease in children aged <5 years, by status of jurisdiction† and percentage of reports with missing serotype data — United States, January 2007–October 2008



* Out of 52 (50 states, District of Columbia, and New York City).

† Five states are entirely covered by Active Bacterial Core surveillance (ABCs) for *H. influenzae* disease: Connecticut, Maryland, Minnesota, New Mexico, and Oregon. Five other states are partially covered by ABCs: California (three-county San Francisco Bay area), Colorado (five-county Denver area), Georgia (20-county Atlanta area), New York (15 counties), and Tennessee (11 counties).

Editorial Note: The primary Hib vaccine series protects infants against invasive Hib disease. However, serum antibody levels decrease by age 12–15 months in children who have completed the primary series (*5*), and the Advisory Committee on Immunization Practices recommends that children receive a booster dose at that age (*6*). Higher concentrations of serum antibodies might be required to interrupt Hib transmission and colonization of the upper respiratory tract than to protect against invasive Hib disease (*7*). Thus, the booster dose can be of particular importance for indirect protection and promotion of herd immunity against Hib disease.

In December 2007, Merck recalled certain lots of PedvaxHIB and Comvax and suspended production of these vaccines because the company was unable to assure the sterility of equipment used during manufacture of those lots (*1*). Interim Hib vaccine recommendations by CDC, in consultation with other organizations, stipulated that vaccination providers defer administering the booster vaccine dose to children not at increased risk for Hib disease until vaccine supply is restored (*1*). Those at increased risk include American Indian/Alaska Native (AI/AN) children and children with certain immunosuppressive conditions (*1*). The recommendations stated that providers should register and track children for whom the booster was deferred to facilitate recalling them for vaccination once supply problems are resolved.

In October 2008, Merck announced that the company had identified the need for an additional manufacturing change and associated regulatory approval and did not expect to restore availability of these vaccines until mid-2009. Sufficient vaccine exists in the United States to provide the primary series and booster dose for AI/AN children and others at increased risk through at least mid-2009. However, the continued delay in restoring these vaccines to the market means continuing the interim recommendations for deferral of Hib booster vaccines for children not at increased risk.

What effect continued deferral of the Hib booster might have on the incidence of invasive Hib disease in young children in the United States is unknown. In this analysis, the annual rate of invasive Hib disease in children aged <5 years was 0.13 per 100,000 during January–October 2008, compared with 0.11 per 100,000 children in 2007 and an average of 0.3 cases per 100,000 per year during 1998–2000, the period of the last published analysis of Hib using NNDSS/ABCs data (*8*). This analysis has not shown an increase in invasive Hib disease in children aged <5 years since the December 2007 vaccine recall. However, the history of Hib disease in the United Kingdom suggests that prolonged deferral of the Hib booster dose might yet lead to changes in the epidemiology of Hib disease in the United States.

In the United Kingdom, Hib conjugate vaccines were introduced in 1992 as a 3-dose primary series without a booster dose, along with a 1-dose catch-up campaign for children aged >4 years. The rate of invasive Hib disease decreased from 22.9 cases per 100,000 children aged <5 years in 1990 to 0.65 cases per 100,000 in 1997. But beginning in 1999, the rate of Hib disease increased again, to 4.6 cases per 100,000 children aged <5 years in 2002 (*9*). One factor likely contributing to this increase was insufficient direct protection and herd immunity because of waning immunity in the absence of a routine Hib booster dose, prompting the United Kingdom to recommend a booster dose in 2003. Based on the United Kingdom experience, prolonged deferral of the Hib booster in the United States might lead to an increase in Hib colonization and disease.

Continued surveillance for invasive *H. influenzae* disease enables monitoring of vaccine failures and potential changes in the epidemiology of non-b *H. influenzae* serotypes. CDC currently uses surveillance data to 1) monitor rates of Hib disease, 2) evaluate the impact of deferring the age 12–15 month Hib vaccine booster dose, and 3) inform other vaccination recommendations. With continuation of the vaccine shortage, *H. influenzae* surveillance takes on increased importance because the shortage might lead to increased Hib colonization, transmission, and eventually Hib disease. However, as the analysis in this report indicates, national surveillance is hampered by incomplete serotype reporting. For children aged <5 years, serotype data are missing for nearly 40% of cases reported to CDC. Although serotype data are more complete from jurisdictions participating in ABCs, the data from that system represent only 12% of the U.S. population. Because changes in the epidemiology of Hib disease resulting from the vaccine shortage might by unevenly distributed on a national level, more complete reporting of *H. influenzae* serotypes is needed for effective surveillance.

National reporting of *H. influenzae* serotypes requires obtaining appropriate clinical specimens for confirmation of suspected *H. influenzae*, sending isolates to a laboratory capable of serotyping using standard procedures (*10*), reporting cases to local health departments, and successfully transmitting data through NNDSS. In 2006, after CDC follow-up with state health departments, the percentage of case reports transmitted through NNDSS with missing serotype data was reduced from 48.6% to 38.0% (K. Brown, CDC, personal communication, 2008). Coupled with the observation that jurisdictions participating in ABCs had fewer case reports with missing serotype data than jurisdictions not participating in ABCs, the follow-up results suggest that enhanced surveillance efforts can improve serotype reporting.

To improve Hib surveillance, CDC will contact state health departments reporting *H. influenzae* disease cases in children aged <5 years during the next several months to solicit serotype information and vaccination history. Health-care providers should contact the local health department when invasive *H. influenzae* is suspected. Health departments and state and hospital laboratories should increase efforts for timely serotyping and reporting of all cases of invasive *H. influenzae* disease in children aged <5 years.

Acknowledgment

The findings in this report are based, in part, on data contributed by state and local health departments and the Active Bacterial Core surveillance team.

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Rotavirus Surveillance — Worldwide, 2001–2008

Rotavirus infection is the leading cause of severe acute diarrhea among young children worldwide (*1*,*2*). An estimated 527,000 children aged <5 years die from rotavirus diarrhea each year, with >85% of these deaths occurring in low-income countries of Africa and Asia (*3*). Two licensed rotavirus vaccines have shown efficacy of 85%–98% against severe rotavirus diarrhea in trials conducted in the Americas and Europe (*4*,*5*), and they have been introduced into routine immunization programs in 11 countries in these regions and in Australia. Additional trials of these vaccines are ongoing to assess efficacy in low-income countries of Asia and Africa, where vaccine performance might be affected by factors such as concurrent enteric infections, greater prevalence of malnutrition, and a greater prevalence of unusual rotavirus strains. Results of these additional trials are expected within the next 1–2 years. To collect epidemiologic and burden-of-disease data that could form the basis of vaccination policy worldwide, beginning in 2001, the World Health Organization (WHO), in collaboration with partners, established networks of hospital-based sentinel surveillance sites for detection of rotavirus diarrhea and characterization of rotavirus strains. This report presents an analysis of results from the WHO surveillance networks for 2001–2008, which indicated that approximately 40% of diarrhea hospitalizations among children aged <5 years worldwide were attributed to rotavirus infection. The most common rotavirus strains found were G1, G2, G3, G4, and G9, and the distribution of strains varied markedly across regions. These data demonstrate the substantial burden of rotavirus diarrhea worldwide and highlight the potential health impact of vaccination.

Since 2001, regional networks of sentinel hospital-based sites have been established in 35 countries located in each of the six WHO regions worldwide.* These sites have conducted rotavirus surveillance using standard guidelines described in a WHO generic protocol (*6*). The period of surveillance differed among the sites depending on when regional networks were established. All data presented in this report were obtained during August 2001–July 2008.

At each site, all children aged <5 years hospitalized with diarrhea (i.e., three or more loose stools in a 24-hour period) were enrolled. Approximately 5 cc of bulk stool were collected from each patient with diarrhea and placed in a screw-top container, preferably within 48 hours of hospital admission. Specimens were stored in a freezer at -4°F (-20°C) until rotavirus testing was performed, generally in a hospital laboratory within the country. A confirmed case of rotavirus diarrhea was defined as diarrhea in a patient who had rotavirus antigen detected by a commercial enzyme immunoassay (EIA) (most frequently used assay was IDEIA™ Rotavirus [Oxoid Ltd (Ely), Cambridge, United Kingdom]) in a fecal specimen. G and P genotypes of strains were characterized in a sample of rotavirus-positive specimens by reverse transcription–polymerase chain reaction (RT-PCR) (*7*), generally in a regional reference laboratory.

To avoid bias from seasonal patterns of rotavirus disease, only data for complete years at each site were analyzed. The percentages of children hospitalized with diarrhea who tested positive for rotavirus and the distribution of strains among rotavirus-positive specimens in each WHO region were examined. Median detection rates and the range of detection rates for all countries within each region and for all countries overall were calculated. Data for the South-East Asian and Western Pacific regions were combined for this report because countries in these two regions were part of a single surveillance network.

A total of 62,584 (range: 3,374–26,065 per WHO region) hospitalized patients aged <5 years with acute diarrhea were tested for rotavirus during the study period at all sites combined (Table 1). The overall median detection rate of rotavirus among all countries was 40%. The median rotavirus detection rate was lowest in the Region of the Americas (34%) and highest in the South-East Asian and the Western Pacific regions (45%).

Of the 4,936 rotavirus-positive specimens from all regions for which strains were characterized, 325 were from the African Region, 388 specimens were from the Region of the Americas, 323 were from the European Region, 1,290 were from the Eastern Mediterranean Region, and 2,610 were

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European Region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.

TABLE 1. Total number of patients aged <5 years who were tested for acute gastroenteritis and median detection rate of rotavirus, by World Health Organization (WHO) region — worldwide, 2001–2008

WHO region*	No. of countries	Total no. of patients tested (range by country)		Median detection rate for all countries (range by country)	
		No.	Range	Rate (%)	Range
African	4	4,356	(642–1,702)	41	(39–52)
Americas	11	26,065	(192–6,062)	34	(10–51)
European	3	3,374	(702–1,969)	40	(38–45)
Eastern Mediterranean	9	17,291	(316–6,553)	40	(29–55)
South-East Asian and Western Pacific†	8	11,498	(388–2,986)	45	(28–59)
Total	**35**	**62,584**	**(192–6,553)**	**40**	**(10–59)**

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European Region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.

† Data adapted from Nelson EA, Bresee JS, Parashar UD, Widdowson MA, Glass RI; Asian Rotavirus Surveillance Network. Rotavirus epidemiology: the Asian Rotavirus Surveillance Network. Vaccine 2008;26:3192–6.

from the South-East Asian and the Western Pacific regions (Table 2). The most common strains in all regions except the Eastern Mediterranean and African regions were G1P[8], G9P[8], and G2P[4], accounting for approximately two thirds of strains in these regions. In the Eastern Mediterranean and African regions, specimens characterized in the category "other" accounted for 50% and 46% of strains, respectively; this category included specimens in which either the G or P type (or both) of the infecting strain could not be characterized.

Reported by: *Dept of Immunization, Vaccines, and Biologicals, World Health Organization, Geneva, Switzerland. World Health Organization Regional Offices in Brazzaville, Republic of the Congo (African Region), District of Columbia, United States (Region of the Americas), Cairo, Egypt (Eastern Mediterranean Region), Copenhagen, Denmark (European Region), New Delhi, India (South-East Asian Region), and Manila, Philippines (Western Pacific Region). Rotavirus Vaccine Program, PATH, Seattle, Washington. Global Immunization Div; Div of Viral Diseases, National Center for Immunization and Respiratory Diseases, CDC.*

Editorial Note: The hospital-based surveillance findings in this report indicate that, during 2001–2008, rotavirus accounted for approximately 40% of hospitalizations for diarrhea among children aged <5 years worldwide. This percentage is greater than those percentages reported in two literature reviews (one reviewing studies published during 1986–1999 and one reviewing studies conducted during 1990–2004), which indicated a median rotavirus detection rate of 22% and 29%, respectively, for diarrhea hospitalizations among children aged <5 years (*2,3*). The higher rotavirus detection rates in the surveillance networks described in this report might reflect more standardized approaches for selection of patients (e.g., enrolling inpatients only and excluding those with milder disease) and/or improved collection and testing of specimens (e.g., obtaining whole stool specimens and avoiding rectal swabs, which might yield a falsely low rotavirus detection rate) than were used in the studies included in these reviews. Alternatively, the higher detection rates described in this report might reflect changing trends in the etiology of severe childhood diarrhea over the past 2–3 decades, reflecting either an absolute increase in the incidence of rotavirus diarrhea or a relatively greater decrease in the incidence of diarrhea from other causes. One review of more recent studies published during 2000–2004 reported a median detection rate of 39% (*1*), which is comparable to the overall rate observed in the surveillance data presented in this report. Similarly, surveillance data collected using a consistent approach (i.e., systematic sampling of patients seeking care for diarrhea) at Dhaka Hospital in Bangladesh during 1993–2004 also indicate that the percentage of childhood diarrhea hospitalizations attributed to rotavirus increased from 22% during 1993–1995 to 42% during 2002–2004 (*8*).

The substantial health burden of rotavirus diarrhea in the world underscores the need for effective interventions (e.g., vaccines) for the control of this disease as part of a comprehensive approach for prevention and control of diarrhea. For optimum results, rotavirus vaccines need to provide good protection against the range of rotavirus strains in circulation. Although the two licensed rotavirus vaccines differ in strain composition (i.e., one is monovalent, and one is pentavalent), both appear to provide protection against a variety of strains, including some strains not included in either of the licensed vaccines (*4,5*). The findings in this report support other observations that strains with G types 1–4 and 9 generally are the most prevalent (*9*), although the Eastern Mediterranean and African regions showed a high prevalence of other strains. As rotavirus vaccines are implemented in immunization programs worldwide, the sentinel hospital-based rotavirus surveillance networks described in this report will provide valuable baseline information to assess the future impact of vaccination. These sites also will provide platforms for conducting specialized epidemiologic studies of vaccine performance (e.g., vaccine effectiveness evaluations) and for detecting possible changes in the epidemiology of rotavirus disease (including possible changes in strains) in the postvaccination era. In countries of

TABLE 2. Number and percentage of rotavirus-positive specimens (N = 4,936) from hospitalized patients aged <5 years with rotavirus diarrhea, by strain and World Health Organization (WHO) region — worldwide, 2001–2008

	WHO region*									
	African		Americas		European		Eastern Mediterranean		South-East Asian and Western Pacific†	
Strain	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
G1P[8]	117	(36)	124	(32)	102	(32)	223	(17)	554	(21)
G2P[4]	29	(9)	71	(18)	59	(18)	310	(24)	332	(13)
G3P[8]	0	(0)	10	(3)	14	(4)	17	(1)	365	(14)
G4P[8]	0	(0)	21	(5)	59	(18)	33	(3)	103	(4)
G9P[8]	31	(10)	81	(21)	63	(20)	59	(5)	758	(29)
Other§	148	(46)	82	(23)	26	(8)	648	(50)	498	(19)
Total	**325**	**(100)**	**388**	**(100)**	**323**	**(100)**	**1,290**	**(100)**	**2,610**	**(100)**

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.
† Data adapted from Nelson EA, Bresee JS, Parashar UD, Widdowson MA, Glass RI; Asian Rotavirus Surveillance Network. Rotavirus epidemiology: the Asian Rotavirus Surveillance Network. Vaccine 2008;26:3192–6.
§ Includes untypeable strains.

Latin America where vaccines have been licensed and recommended by WHO, existing surveillance networks currently are being used to conduct such evaluations of vaccine impact and effectiveness.

The findings in this report are subject to at least two limitations. First, although the countries participating in the various regional networks conducted surveillance using a standard generic WHO protocol, methods were adapted according to local needs (e.g., obtaining information on use of oral rehydration therapy or antibiotics before hospitalization) and availability of resources. These variations might have affected the comparability of data across sites, but key factors such as criteria for enrollment of cases, procedures for obtaining fecal specimens, and methods of rotavirus detection and strain characterization were well standardized. Formal assurance and standardization systems are being implemented to ensure further improvement in the quality and comparability of data across various countries and networks. Second, although surveillance generally was conducted in large pediatric hospitals that cared for a substantial number of patients with acute gastroenteritis, these sites might not be representative of the total population of the country.

Data generated from global rotavirus surveillance networks highlight the burden of rotavirus hospitalizations, including those in low-income countries that are eligible for financial support for vaccine purchase through the GAVI Alliance (formerly known as the Global Alliance for Vaccines and Immunizations). Fourteen low-income countries in regions where vaccine efficacy is proven (i.e., Latin America and Europe) are currently eligible for GAVI Alliance support for rotavirus vaccine purchase. If ongoing trials in Africa and Asia show good vaccine efficacy, this support likely will be extended to the remaining 58 countries eligible for GAVI Alliance funding in other regions. The availability and use of rotavirus vaccines globally should have a substantial impact on hospitalizations and mortality associated with childhood diarrhea and thereby will contribute to achievement of the United Nations' Millennium Development Goals for reduction of childhood mortality.†

† Available at http://www.unicef.org/mdg/mortalitymultimedia/index.html.

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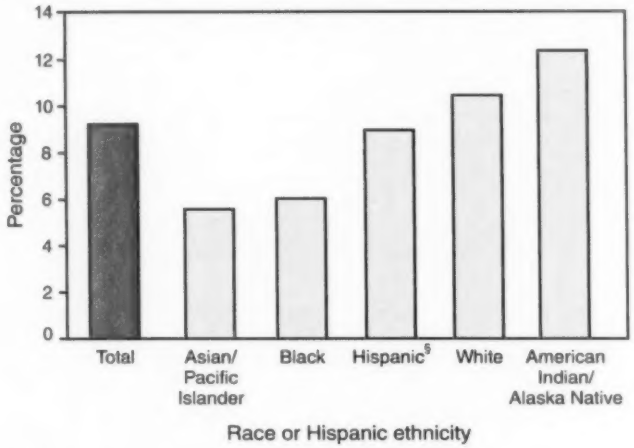
QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Large-for-Gestational-Age* Births,† by Race or Hispanic Ethnicity — United States, 2005



* Birthweight at or above the 90th percentile for a given gestational age.
† Includes only singleton live births.
§ Might be of any race.

Infants born large for their gestational age (LGA) are at increased risk for birth complications, such as obstructed labor, and for obesity later in life. Information from U.S. birth certificates for 2005 shows that a greater percentage of American Indian/Alaska Native women gave birth to an LGA infant (12%), followed by white (10%) and Hispanic women (9%). Black and Asian/Pacific Islander women were least likely to have given birth to an LGA infant (6%).

SOURCES: National Vital Statistics System. Annual natality files. Available at http://www.cdc.gov/nchs/births.htm.

Oken E, Kleiman KP, Rich-Edwards J, Gillman MW. A nearly continuous measure of birth weight for gestational age using a United States national reference. BMC Pediatr 2003;3:6. Available at http://www.biomedcentral.com/content/pdf/1471-2431-3-6.pdf.

TABLE 1. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending November 15, 2008 (46th week)*

Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years 2007	2006	2005	2004	2003	States reporting cases during current week (No.)
Anthrax	—	—	—	1	1	—	—	—	
Botulism:									
foodborne	—	11	1	32	20	19	16	20	
infant	—	79	2	85	97	85	87	76	
other (wound & unspecified)	—	17	0	27	48	31	30	33	
Brucellosis	2	81	2	131	121	120	114	104	NY (1), CA (1)
Chancroid	—	29	1	23	33	17	30	54	
Cholera	—	1	0	7	9	8	6	2	
Cyclosporiasis§	3	118	1	93	137	543	160	75	IN (1), MD (1), FL (1)
Diphtheria	—	—	—	—	—	—	—	1	
Domestic arboviral diseases§,¶:									
California serogroup	—	36	0	55	67	80	112	108	
eastern equine	—	2	0	4	8	21	6	14	
Powassan	—	1	0	7	1	1	1	—	
St. Louis	—	8	0	9	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
Ehrlichia chaffeensis	1	743	8	828	578	506	338	321	KY (1)
Ehrlichia ewingii	—	7	—	—	—	—	—	—	
Anaplasma phagocytophilum	2	366	10	834	646	786	537	362	NY (1), MN (1)
undetermined	—	63	2	337	231	112	59	44	
Haemophilus influenzae,††									
invasive disease (age <5 yrs):									
serotype b	1	24	0	22	29	9	19	32	OH (1)
nonserotype b	1	143	2	199	175	135	135	117	FL (1)
unknown serotype	3	167	3	180	179	217	177	227	MO (1), MD (1), TN (1)
Hansen disease§	—	65	2	101	66	87	105	95	
Hantavirus pulmonary syndrome§	—	14	0	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	4	186	3	292	288	221	200	178	FL (1), CA (3)
Hepatitis C viral, acute	6	707	17	849	766	652	720	1,102	MI (1), NC (1), WA (1), OR (3)
HIV infection, pediatric (age <13 years)§§	—	—	4	—	—	380	436	504	
Influenza-associated pediatric mortality§,¶¶	—	90	0	77	43	45	—	N	
Listeriosis	7	558	14	808	884	896	753	696	MD (2), NC (1), FL (2), AR (1), CA (1)
Measles***	—	132	0	43	55	66	37	56	
Meningococcal disease, invasive†††:									
A, C, Y, & W-135	—	236	4	325	318	297	—	—	
serogroup B	1	131	3	167	193	158	—	—	OK (1)
other serogroup	—	30	1	35	32	27	—	—	
unknown serogroup	6	534	11	550	651	765	—	—	NY (1), OH (2), SC (1), CO (1), CA (1)
Mumps	2	352	16	800	6,584	314	258	231	MI (1), CA (1)
Novel influenza A virus infections	1	1	—	4	N	N	N	N	TX (1)
Plague	—	1	0	7	17	8	3	1	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Polio virus infection, nonparalytic§	—	—	—	—	N	N	N	N	
Psittacosis§	—	9	0	12	21	16	12	12	
Qfever§,§§§ total:	—	103	1	171	169	136	70	71	
acute	—	92	—	—	—	—	—	—	
chronic	—	11	—	—	—	—	—	—	
Rabies, human	—	—	0	1	3	2	7	2	
Rubella¶¶¶	—	13	—	12	11	11	10	7	
Rubella, congenital syndrome	—	—	—	—	1	1	—	1	
SARS-CoV§,****	—	—	—	—	—	—	—	8	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	1	112	1	132	125	129	132	161	OH (1)
Syphilis, congenital (age <1 yr)	—	192	8	430	349	329	353	413	
Tetanus	—	10	0	28	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	2	57	1	92	101	90	95	133	CA (2)
Trichinellosis	—	4	0	5	15	16	5	6	
Tularemia	1	88	2	137	95	154	134	129	NE (1)
Typhoid fever	1	352	4	434	353	324	322	356	CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	6	0	37	6	2	—	N	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	—	2	1	3	1	N	
Vibriosis (noncholera *Vibrio* species infections)§	6	396	3	447	N	N	N	N	FL (2), KY (1), WA (1), CA (1), HI (1)
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE 1. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending November 15, 2008 (46th week)*

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

* Incidence data for reporting year 2008 are provisional, whereas data for 2003, 2004, 2005, 2006, and 2007 are finalized.

† Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.

§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.

¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.

** The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).

†† Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

§§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.

¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. There are no reports of confirmed influenza-associated pediatric deaths for the current 2008-09 season.

*** No measles cases were reported for the current week.

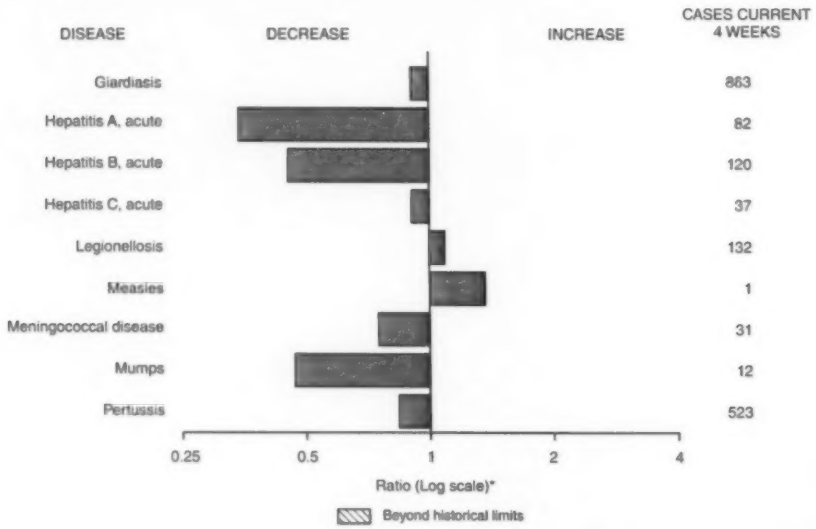
††† Data for meningococcal disease (all serogroups) are available in Table II.

§§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.

¶¶¶ No rubella cases were reported for the current week.

**** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals November 15, 2008, with historical data



* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

Notifiable Disease Data Team and 122 Cities Mortality Data Team

Patsy A. Hall

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Chlamydia†					Coccidiodomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 week		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	12,689	21,200	28,892	954,829	971,989	148	121	341	5,795	6,697	43	102	426	6,536	10,397
New England	674	707	1,516	32,699	31,343	—	0	1	1	2	1	5	39	283	312
Connecticut	141	215	1,093	10,108	9,264	N	0	0	N	N	—	0	37	37	42
Maine§	60	50	72	2,289	2,247	N	0	0	N	N	—	1	6	41	49
Massachusetts	368	327	660	15,366	14,238	N	0	0	N	N	—	1	9	91	124
New Hampshire	43	40	64	1,881	1,843	—	0	1	1	2	—	1	4	53	46
Rhode Island§	46	54	104	2,379	2,809	—	0	0	—	—	—	0	2	7	10
Vermont§	16	15	52	676	942	N	0	0	N	N	1	1	7	54	41
Mid. Atlantic	4,428	2,763	4,942	130,755	127,004	—	0	0	—	—	5	12	34	647	1,307
New Jersey	11	419	537	18,215	19,090	N	0	0	N	N	—	0	2	26	64
New York (Upstate)	456	555	2,177	23,929	24,216	N	0	0	N	N	2	4	17	241	228
New York City	3,413	975	3,021	51,231	45,886	N	0	0	N	N	—	2	6	95	95
Pennsylvania	548	823	1,047	37,380	37,812	N	0	0	N	N	3	5	15	285	920
E.N. Central	890	3,477	4,373	153,666	158,789	—	1	3	38	32	8	25	122	1,799	1,754
Illinois	5	1,062	1,711	44,449	47,173	N	0	0	N	N	—	2	7	104	188
Indiana	267	375	656	18,022	18,717	N	0	0	N	N	2	3	41	173	90
Michigan	467	834	1,226	39,032	32,944	—	0	3	29	21	—	5	13	231	182
Ohio	10	828	1,261	37,484	42,330	—	0	1	9	11	5	6	59	648	535
Wisconsin	141	335	612	14,679	17,625	N	0	0	N	N	1	8	46	643	759
W.N. Central	654	1,265	1,700	57,304	56,305	—	0	77	2	8	6	16	71	878	1,516
Iowa	—	165	240	7,598	7,799	N	0	0	N	N	—	4	30	259	599
Kansas	131	181	529	8,150	7,237	N	0	0	N	N	2	1	8	75	139
Minnesota	—	264	373	11,639	12,089	—	0	77	—	—	4	5	15	210	257
Missouri	397	478	566	21,789	20,782	—	0	1	2	8	—	3	13	152	169
Nebraska§	51	91	252	4,067	4,591	N	0	0	N	N	—	2	8	106	163
North Dakota	23	33	65	1,483	1,529	N	0	0	N	N	—	0	51	7	23
South Dakota	52	55	85	2,578	2,278	N	0	0	N	N	—	1	9	69	166
S. Atlantic	1,875	3,662	7,609	165,757	190,334	—	0	1	4	5	9	18	46	860	1,156
Delaware	57	67	150	3,275	3,050	—	0	1	1	—	—	0	2	10	20
District of Columbia	108	129	210	6,078	5,339	—	0	0	—	2	—	0	2	8	3
Florida	880	1,359	1,569	61,300	50,954	N	0	0	N	N	2	8	35	415	615
Georgia	3	231	1,338	15,966	38,246	N	0	0	N	N	1	4	13	200	213
Maryland§	—	451	699	19,841	19,855	—	0	1	3	3	1	0	4	33	33
North Carolina	—	3	4,783	5,901	24,330	N	0	0	N	N	2	0	16	63	102
South Carolina§	514	465	3,047	23,407	23,727	N	0	0	N	N	3	1	4	45	81
Virginia§	311	616	1,059	27,334	22,001	N	0	0	N	N	—	1	4	67	78
West Virginia	2	57	96	2,655	2,832	N	0	0	N	N	—	0	3	19	11
E.S. Central	1,111	1,564	2,394	72,878	73,488	—	0	0	—	—	2	3	9	147	589
Alabama§	—	457	589	18,978	22,518	N	0	0	N	N	—	1	6	60	113
Kentucky	250	234	370	10,731	7,466	N	0	0	N	N	—	0	4	31	246
Mississippi	411	369	1,048	18,422	19,224	N	0	0	N	N	—	0	2	16	100
Tennessee§	450	528	790	24,747	24,280	N	0	0	N	N	2	1	6	40	130
W.S. Central	257	2,752	4,426	122,281	110,751	—	0	1	3	2	2	5	130	1,071	415
Arkansas§	46	276	455	12,548	8,803	N	0	0	N	N	—	0	6	37	58
Louisiana	211	383	775	16,504	17,614	—	0	1	3	2	—	1	5	52	57
Oklahoma	—	195	392	7,668	11,257	N	0	0	N	N	2	1	16	122	114
Texas§	—	1,892	3,923	83,561	73,077	N	0	0	N	N	—	2	117	860	186
Mountain	814	1,266	1,811	56,357	65,606	86	88	170	3,829	4,178	8	9	37	489	2,851
Arizona	308	470	651	21,236	22,099	86	86	168	3,754	4,037	3	1	9	86	47
Colorado	358	196	488	9,159	15,465	N	0	0	N	N	5	1	12	108	204
Idaho§	91	60	314	3,276	3,253	N	0	0	N	N	—	1	14	61	442
Montana§	—	58	363	2,414	2,273	N	0	0	N	N	—	1	6	39	61
Nevada§	—	181	416	8,242	8,587	—	1	6	41	60	—	0	1	1	36
New Mexico§	—	135	561	5,859	8,055	—	0	3	27	20	—	1	23	144	118
Utah	36	115	253	4,840	4,804	—	0	3	5	58	—	0	6	33	1,889
Wyoming§	23	30	58	1,331	1,070	—	0	1	2	3	—	0	4	17	54
Pacific	1,986	3,692	4,676	163,132	158,369	62	31	217	1,918	2,470	2	9	29	362	497
Alaska	53	88	129	3,917	4,322	N	0	0	N	N	—	0	1	3	3
California	1,482	2,878	4,115	128,714	123,778	62	31	217	1,918	2,470	2	5	14	219	256
Hawaii	27	103	153	4,597	5,051	N	0	0	N	N	—	0	1	2	6
Oregon§	114	188	402	8,769	8,508	N	0	0	N	N	—	1	4	50	122
Washington	310	372	634	17,135	16,710	N	0	0	N	N	—	2	16	88	110
American Samoa	—	0	20	73	95	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	5	24	115	747	—	0	0	—	—	—	0	0	—	—
Puerto Rico	115	121	612	6,253	6,522	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	12	23	502	146	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.
† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	195	308	1,158	15,015	16,455	2,986	5,942	8,913	263,370	313,473	27	48	173	2,227	2,114
New England	2	24	49	1,134	1,325	68	103	227	4,648	4,946	5	3	12	134	159
Connecticut	—	6	11	278	328	20	52	199	2,287	1,891	5	0	9	39	43
Maine§	1	3	12	158	174	3	1	6	84	111	—	0	1	15	12
Massachusetts	—	9	17	343	555	40	38	127	1,880	2,395	—	1	5	57	77
New Hampshire	1	2	11	134	31	2	2	6	92	131	—	0	1	9	16
Rhode Island§	—	1	8	76	77	2	6	13	280	364	—	0	1	6	8
Vermont§	—	2	13	145	160	1	0	5	25	54	—	0	3	8	3
Mid. Atlantic	51	60	131	2,804	2,855	838	625	1,028	29,198	32,302	6	10	31	427	405
New Jersey	—	7	14	302	365	2	100	168	4,465	5,393	—	1	7	66	62
New York (Upstate)	37	23	111	1,059	1,043	93	122	545	5,328	6,044	4	3	22	130	114
New York City	4	15	27	703	771	636	175	519	9,514	9,489	—	1	6	73	87
Pennsylvania	10	15	45	740	676	107	225	394	9,891	11,376	2	4	8	158	142
E.N. Central	25	46	78	2,201	2,580	259	1,239	1,647	54,657	64,613	1	7	28	327	324
Illinois	—	10	22	492	805	3	371	589	15,413	17,748	—	2	7	102	101
Indiana	N	0	0	N	N	95	149	284	7,242	8,052	—	1	20	65	54
Michigan	1	11	21	503	554	107	329	657	14,619	13,727	—	0	3	17	26
Ohio	22	16	31	801	728	8	301	531	13,391	18,973	1	2	6	119	91
Wisconsin	2	9	23	405	493	46	94	175	3,992	6,113	—	1	2	24	52
W.N. Central	18	26	621	1,742	1,348	171	318	425	14,530	17,482	3	3	24	174	124
Iowa	—	6	17	282	274	—	28	48	1,289	1,733	—	0	1	2	1
Kansas	1	3	11	145	167	33	41	130	2,026	2,057	—	0	3	13	11
Minnesota	—	0	575	590	168	—	57	92	2,553	3,110	—	0	21	54	56
Missouri	9	8	22	411	478	106	149	203	7,102	8,948	2	1	6	67	37
Nebraska§	6	4	10	186	147	19	25	47	1,158	1,295	1	0	2	26	15
North Dakota	2	0	36	21	20	1	2	6	91	108	—	0	3	12	4
South Dakota	—	2	10	107	94	12	7	15	311	231	—	0	0	—	—
S. Atlantic	40	55	87	2,459	2,734	743	1,186	3,072	55,809	73,887	7	11	29	595	532
Delaware	—	1	3	38	39	10	20	44	919	1,160	—	0	2	7	8
District of Columbia	—	1	5	51	68	44	48	104	2,305	2,116	—	0	1	9	3
Florida	33	22	52	1,138	1,142	263	449	549	20,339	20,691	3	3	10	159	143
Georgia	—	10	27	511	613	—	105	560	6,101	15,762	—	2	9	132	106
Maryland§	7	5	12	225	245	—	118	206	5,346	5,930	2	2	6	85	78
North Carolina	N	0	0	N	N	—	0	1,949	2,638	12,644	1	1	9	66	51
South Carolina§	—	2	6	106	108	170	189	832	8,434	9,166	1	1	7	46	46
Virginia§	—	9	39	338	473	254	166	486	9,107	5,571	—	1	6	73	72
West Virginia	—	1	5	52	46	2	14	26	620	847	—	0	3	18	25
E.S. Central	—	9	21	415	515	327	552	945	26,012	28,629	3	2	8	114	127
Alabama§	—	5	12	231	240	—	179	287	7,510	9,637	—	0	2	17	27
Kentucky	N	0	0	N	N	81	90	153	4,084	2,937	—	0	1	2	8
Mississippi	N	0	0	N	N	127	131	401	6,557	7,385	—	0	2	13	9
Tennessee§	—	4	13	184	275	119	163	296	7,861	8,670	3	2	6	82	83
W.S. Central	4	7	41	378	392	156	954	1,355	41,904	46,004	—	2	29	95	89
Arkansas§	—	3	8	125	142	49	86	167	4,111	3,779	—	0	3	9	9
Louisiana	—	2	9	113	128	107	169	317	7,953	10,101	—	0	2	7	8
Oklahoma	4	3	35	140	122	—	67	124	2,903	4,358	—	1	21	71	62
Texas§	N	0	0	N	N	—	635	1,102	26,937	27,766	—	0	3	8	10
Mountain	14	28	60	1,302	1,629	103	212	338	9,475	12,298	2	5	14	250	223
Arizona	1	2	7	118	181	40	68	109	2,991	4,528	—	2	11	102	79
Colorado	10	11	27	511	518	58	58	100	2,725	3,008	2	1	4	50	53
Idaho§	3	4	19	176	161	3	3	13	140	238	—	0	4	12	6
Montana§	—	1	9	74	101	—	2	48	95	61	—	0	1	2	2
Nevada§	—	1	7	81	128	—	40	130	1,901	2,114	—	0	2	14	10
New Mexico§	—	1	7	78	108	—	24	104	1,094	1,579	—	1	4	33	38
Utah	—	5	22	242	391	—	11	36	418	700	—	1	6	34	30
Wyoming§	—	0	3	22	41	2	2	9	111	70	—	0	2	3	5
Pacific	41	54	185	2,580	3,077	321	608	746	27,137	33,312	—	2	7	111	131
Alaska	2	2	10	91	72	2	10	24	444	501	—	0	2	16	15
California	32	35	91	1,675	2,059	274	510	657	22,538	27,810	—	0	3	25	45
Hawaii	—	1	5	38	72	4	11	22	511	593	—	0	2	17	11
Oregon§	2	8	18	404	420	14	23	48	1,090	1,083	—	1	4	50	58
Washington	5	8	87	372	454	27	55	90	2,554	3,325	—	0	3	3	2
American Samoa	—	0	0	—	—	—	0	1	3	3	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	2	—	1	15	72	118	—	0	1	—	—
Puerto Rico	3	2	10	117	354	4	5	25	250	284	—	0	0	—	2
U.S. Virgin Islands	—	0	0	—	—	—	2	6	93	37	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Hepatitis (viral, acute), by type†										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	17	47	171	2,154	2,553	21	69	259	2,988	3,836	29	49	139	2,429	2,339
New England	—	2	7	98	122	—	1	7	50	114	—	2	16	118	137
Connecticut	—	0	4	26	25	—	0	7	19	35	—	0	5	37	36
Maine§	—	0	2	8	3	—	0	2	10	13	—	0	2	9	7
Massachusetts	—	0	5	38	61	—	0	1	9	41	—	0	3	13	39
New Hampshire	—	0	2	12	12	—	0	1	6	5	—	0	5	24	8
Rhode Island§	—	0	2	12	13	—	0	2	4	15	—	0	14	30	38
Vermont§	—	0	1	2	8	—	0	1	2	5	—	0	1	5	9
Mid. Atlantic	4	6	12	262	413	3	9	15	377	495	7	14	58	831	753
New Jersey	—	1	4	51	118	—	2	7	110	137	—	1	7	77	104
New York (Upstate)	—	1	6	57	67	2	1	4	59	81	2	5	19	296	204
New York City	—	2	6	93	146	—	2	6	78	110	—	2	12	101	170
Pennsylvania	4	1	6	61	82	1	3	7	130	167	5	6	33	357	275
E.N. Central	1	6	15	282	309	1	7	12	338	406	2	10	39	518	536
Illinois	—	1	10	85	109	—	1	5	78	124	—	1	7	66	105
Indiana	—	0	4	21	27	—	1	6	40	47	1	1	7	46	55
Michigan	1	2	7	105	86	—	2	6	110	103	—	2	16	141	155
Ohio	—	1	4	45	58	1	2	8	104	112	1	4	18	248	190
Wisconsin	—	0	2	26	29	—	0	1	6	20	—	0	3	17	31
W.N. Central	3	5	29	237	152	2	2	9	87	101	2	2	9	110	105
Iowa	—	1	7	104	43	—	0	2	13	23	—	0	2	13	11
Kansas	—	0	3	13	7	—	0	3	7	8	—	0	1	2	9
Minnesota	—	0	23	36	62	—	0	5	10	17	2	0	4	21	25
Missouri	2	1	3	40	19	1	1	4	50	35	—	1	5	53	43
Nebraska§	1	0	5	40	15	1	0	1	6	11	—	0	4	19	13
North Dakota	—	0	2	—	—	—	0	1	1	—	—	0	2	—	—
South Dakota	—	0	1	4	6	—	0	0	—	7	—	0	1	2	4
S. Atlantic	3	7	15	346	437	3	16	60	758	890	5	8	28	403	387
Delaware	—	0	1	7	7	—	0	3	7	14	—	0	2	11	11
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	1	13	15
Florida	1	3	8	137	137	1	6	12	292	303	3	3	7	132	130
Georgia	1	1	4	44	62	1	3	6	125	137	—	0	4	27	37
Maryland§	—	1	3	37	69	—	2	4	71	106	2	2	10	107	75
North Carolina	1	0	9	58	57	—	0	17	73	120	—	0	7	33	42
South Carolina§	—	0	3	15	17	—	1	6	53	56	—	0	2	11	17
Virginia§	—	1	5	43	79	1	2	16	89	115	—	1	6	49	47
West Virginia	—	0	2	5	9	—	1	30	48	39	—	0	3	20	13
E.S. Central	2	1	9	74	96	1	7	13	320	338	2	2	10	101	91
Alabama§	—	0	4	12	19	—	2	6	89	118	—	0	2	14	9
Kentucky	1	0	3	28	19	—	2	5	76	68	2	1	4	51	46
Mississippi	1	0	2	5	8	—	0	3	38	36	—	0	1	1	—
Tennessee§	—	0	6	29	50	1	3	8	117	116	—	1	5	35	36
W.S. Central	—	5	55	183	234	6	13	131	553	833	—	1	23	70	116
Arkansas§	—	0	1	5	12	—	0	4	30	66	—	0	2	11	15
Louisiana	—	0	1	10	27	—	2	4	73	89	—	0	2	9	4
Oklahoma	—	0	3	7	10	6	2	22	102	119	—	0	6	10	5
Texas§	—	4	53	161	185	—	7	107	348	559	—	1	18	40	92
Mountain	1	4	9	173	208	—	4	10	174	191	4	2	4	70	101
Arizona	1	2	8	79	138	—	1	5	60	76	2	0	2	18	36
Colorado	—	0	3	35	24	—	0	3	30	34	—	0	2	10	21
Idaho§	—	0	3	18	6	—	0	2	9	12	—	0	1	3	6
Montana§	—	0	1	1	9	—	0	1	2	—	—	0	1	4	3
Nevada§	—	0	3	8	11	—	1	3	32	43	2	0	1	10	8
New Mexico§	—	0	3	16	11	—	0	2	9	12	—	0	1	6	10
Utah	—	0	2	13	6	—	0	5	28	10	—	0	2	19	14
Wyoming§	—	0	1	3	3	—	0	1	4	4	—	0	0	—	3
Pacific	3	11	51	499	582	5	7	30	331	468	7	4	18	208	113
Alaska	—	0	1	3	4	—	0	2	9	7	1	0	1	2	—
California	3	9	42	407	500	5	5	19	235	344	6	3	14	166	83
Hawaii	—	0	2	17	7	—	0	2	7	16	—	0	1	8	2
Oregon§	—	0	3	26	27	—	1	3	38	52	—	0	2	15	11
Washington	—	1	7	46	44	—	1	9	42	49	—	0	3	17	17
American Samoa	—	0	0	—	—	—	0	0	—	14	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	2	—	0	0	—	—
Puerto Rico	1	0	4	17	58	—	0	5	38	79	—	0	1	1	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Data for acute hepatitis C, viral are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serotypes				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	244	351	1,431	23,058	24,761	7	22	136	931	1,143	7	18	53	931	950
New England	19	50	252	3,317	7,517	—	1	35	33	54	—	0	3	22	41
Connecticut	—	0	35	—	2,963	—	0	27	11	2	—	0	1	1	6
Maine§	19	2	72	775	460	—	0	1	—	8	—	0	1	6	7
Massachusetts	—	13	114	1,039	2,921	—	0	2	14	31	—	0	3	15	19
New Hampshire	—	8	133	1,198	867	—	0	1	4	9	—	0	0	—	3
Rhode Island§	—	0	12	—	175	—	0	8	—	—	—	0	0	—	3
Vermont§	—	2	39	305	131	—	0	1	4	4	—	0	1	—	3
Mid. Atlantic	165	169	1,011	13,497	10,193	—	4	14	214	349	1	2	6	107	120
New Jersey	—	32	209	2,602	2,967	—	0	2	—	65	—	0	2	10	18
New York (Upstate)	124	53	453	4,520	3,027	—	1	8	28	58	1	0	3	28	35
New York City	—	0	7	26	397	—	3	10	151	186	—	0	2	25	20
Pennsylvania	41	56	529	6,349	3,802	—	1	3	35	40	—	1	5	44	47
E.N. Central	1	9	130	1,063	2,054	—	2	7	113	123	2	3	9	157	150
Illinois	—	0	9	75	149	—	1	6	48	57	—	1	4	54	56
Indiana	—	0	8	37	45	—	0	2	5	9	—	0	4	23	25
Michigan	—	1	11	90	51	—	0	2	14	18	—	0	3	28	25
Ohio	—	0	5	42	32	—	0	3	28	22	2	1	4	38	33
Wisconsin	1	7	116	819	1,777	—	0	3	18	17	—	0	2	14	11
W.N. Central	27	8	740	1,159	567	1	1	9	60	40	—	2	8	85	62
Iowa	—	1	8	82	120	—	0	1	5	3	—	0	3	16	14
Kansas	—	0	1	5	8	—	0	2	9	3	—	0	1	5	4
Minnesota	27	2	731	1,015	419	—	0	8	24	16	—	0	7	22	18
Missouri	—	0	4	41	10	1	0	4	14	8	—	0	3	25	16
Nebraska§	—	0	2	12	7	—	0	2	8	7	—	0	1	12	5
North Dakota	—	0	9	1	3	—	0	2	—	2	—	0	1	3	2
South Dakota	—	0	1	3	—	—	0	0	—	1	—	0	1	2	3
S. Atlantic	22	64	185	3,600	4,180	4	5	15	243	237	1	3	10	141	157
Delaware	4	12	37	690	665	—	0	1	2	4	—	0	1	2	1
District of Columbia	—	2	11	147	115	—	0	2	4	2	—	0	0	—	—
Florida	4	1	10	100	24	3	1	7	52	50	—	1	3	48	60
Georgia	1	0	3	22	10	—	1	5	48	37	—	0	2	16	22
Maryland§	8	30	121	1,798	2,410	1	1	6	62	63	—	0	4	16	19
North Carolina	3	0	7	42	43	—	0	7	26	20	—	0	4	12	18
South Carolina§	—	0	2	21	29	—	0	1	9	6	1	0	3	21	16
Virginia§	2	12	68	712	817	—	1	7	40	54	—	0	2	21	19
West Virginia	—	1	11	68	67	—	0	0	—	1	—	0	1	5	2
E.S. Central	2	0	3	43	50	—	0	2	17	33	—	1	6	48	48
Alabama§	—	0	3	10	13	—	0	1	4	6	—	0	2	9	9
Kentucky	—	0	1	3	5	—	0	1	4	8	—	0	2	8	11
Mississippi	—	0	1	1	1	—	0	1	1	2	—	0	2	11	11
Tennessee§	2	0	3	29	31	—	0	2	8	17	—	0	3	20	17
W.S. Central	—	2	11	95	74	—	1	54	72	84	1	2	13	98	93
Arkansas§	—	0	0	—	1	—	0	0	—	2	—	0	2	7	9
Louisiana	—	0	1	3	2	—	0	1	3	14	—	0	3	22	25
Oklahoma	—	0	1	—	—	—	0	4	2	5	1	0	5	15	16
Texas§	—	2	10	92	71	—	1	50	67	63	—	1	7	54	43
Mountain	—	0	4	41	42	—	1	3	29	61	1	1	4	50	59
Arizona	—	0	2	8	2	—	0	2	14	12	—	0	2	10	12
Colorado	—	0	2	7	—	—	0	1	4	23	1	0	1	13	21
Idaho§	—	0	2	10	9	—	0	1	3	4	—	0	2	4	4
Montana§	—	0	1	4	4	—	0	0	—	3	—	0	1	5	2
Nevada§	—	0	2	4	12	—	0	3	3	3	—	0	1	4	5
New Mexico§	—	0	2	6	5	—	0	1	2	5	—	0	1	7	2
Utah	—	0	0	—	7	—	0	1	3	11	—	0	1	5	11
Wyoming§	—	0	1	2	3	—	0	0	—	—	—	0	1	2	2
Pacific	8	5	10	243	84	2	3	10	150	162	1	4	18	223	220
Alaska	—	0	2	5	9	—	0	2	6	2	—	0	2	4	1
California	6	3	10	183	66	2	2	8	112	116	1	2	18	158	160
Hawaii	N	0	0	N	N	—	0	1	3	2	—	0	2	4	10
Oregon§	2	0	5	45	6	—	0	2	4	17	—	1	3	33	28
Washington	—	0	7	10	3	—	0	3	25	25	—	0	5	24	21
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	3	1	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	3	—	0	1	3	8
U.S. Virgin Islands	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	147	156	849	7,532	8,651	27	93	147	4,211	5,537	10	36	195	2,077	1,880
New England	—	14	49	561	1,348	4	7	20	333	494	—	0	1	2	8
Connecticut	—	0	4	34	80	3	4	17	186	208	—	0	0	—	—
Maine†	—	0	5	35	75	—	1	5	51	80	N	0	0	N	N
Massachusetts	—	11	33	420	1,041	N	0	0	N	N	—	0	1	1	7
New Hampshire	—	0	4	31	74	—	1	3	35	51	—	0	1	1	1
Rhode Island†	—	0	25	29	29	N	0	0	N	N	—	0	0	—	—
Vermont†	—	0	6	12	49	1	1	6	61	155	—	0	0	—	—
Mid. Atlantic	21	19	43	866	1,133	6	22	50	1,179	930	—	2	5	76	74
New Jersey	—	1	9	36	200	—	0	0	—	—	—	0	2	12	29
New York (Upstate)	7	7	24	388	496	6	9	20	461	482	—	0	2	16	6
New York City	—	1	6	46	132	—	0	2	13	42	—	0	2	24	24
Pennsylvania	14	9	23	396	305	—	14	35	705	406	—	0	2	24	15
E.N. Central	29	22	189	1,248	1,408	—	3	28	240	401	—	1	13	125	58
Illinois	—	3	18	213	177	—	1	21	103	113	—	1	10	84	38
Indiana	5	1	15	92	53	—	0	2	10	12	—	0	3	7	5
Michigan	2	5	14	226	269	—	1	8	70	200	—	0	1	3	4
Ohio	22	8	176	653	593	—	1	7	57	76	—	0	4	30	10
Wisconsin	—	1	7	64	316	N	0	0	N	N	—	0	1	1	1
W.N. Central	44	14	142	853	660	2	3	12	174	244	1	5	36	487	358
Iowa	—	1	9	68	138	—	0	5	27	30	—	0	2	6	16
Kansas	—	1	13	53	96	—	0	7	—	99	—	0	0	—	12
Minnesota	8	2	131	223	210	—	0	10	61	32	—	0	4	—	1
Missouri	14	5	31	300	87	2	0	9	50	38	1	4	35	458	310
Nebraska†	22	2	30	191	65	—	0	0	—	—	—	0	4	20	14
North Dakota	—	0	5	1	7	—	0	8	24	21	—	0	0	—	—
South Dakota	—	0	3	17	57	—	0	2	12	24	—	0	1	3	5
S. Atlantic	13	14	50	753	861	12	37	101	1,853	2,016	2	15	70	796	889
Delaware	—	0	3	16	11	—	0	0	—	—	1	0	4	28	16
District of Columbia	—	0	1	5	9	—	0	0	—	—	—	0	2	7	3
Florida	7	4	20	255	197	—	0	77	128	128	—	0	3	17	15
Georgia	—	1	6	59	33	—	6	42	288	271	1	1	8	72	58
Maryland†	4	2	9	107	108	—	8	17	386	392	—	1	7	63	60
North Carolina	—	0	38	79	288	12	9	16	424	445	—	2	55	414	563
South Carolina†	—	2	22	97	71	—	0	0	—	46	—	1	8	49	61
Virginia†	2	3	10	129	114	—	12	24	554	658	—	1	15	139	108
West Virginia	—	0	2	6	30	—	1	9	73	76	—	0	1	7	5
E.S. Central	4	6	13	284	431	2	1	7	95	147	—	3	23	296	268
Alabama†	—	1	5	42	85	—	0	0	—	—	—	1	8	84	92
Kentucky	—	1	8	81	27	2	0	4	45	18	—	0	1	1	5
Mississippi	—	2	6	86	243	—	0	1	2	2	—	0	1	6	20
Tennessee†	4	1	6	75	76	—	0	6	48	127	—	2	19	205	151
W.S. Central	21	24	198	1,260	955	—	1	40	85	989	7	2	153	259	188
Arkansas†	—	1	11	48	159	—	1	6	47	29	7	0	14	57	100
Louisiana	—	1	7	68	20	—	0	0	—	6	—	0	1	5	4
Oklahoma	21	0	26	53	6	—	0	32	36	45	—	0	132	158	47
Texas†	—	20	179	1,091	770	—	0	14	2	909	—	1	8	39	37
Mountain	4	15	37	679	978	—	1	8	71	89	—	0	3	32	34
Arizona	—	3	10	176	195	N	0	0	N	N	—	0	2	13	9
Colorado	4	3	13	136	266	—	0	0	—	—	—	0	1	1	3
Idaho†	—	0	5	28	37	—	0	1	—	11	—	0	1	1	4
Montana†	—	1	11	77	41	—	0	2	8	19	—	0	1	3	1
Nevada†	—	0	7	18	37	—	0	4	5	13	—	0	2	2	—
New Mexico†	—	0	5	39	70	—	0	3	24	12	—	0	1	2	5
Utah	—	5	27	189	309	—	0	6	13	16	—	0	0	—	—
Wyoming†	—	0	2	16	23	—	0	3	21	18	—	0	2	10	12
Pacific	11	22	303	1,028	877	1	4	13	181	227	—	0	1	4	3
Alaska	9	2	19	194	86	1	0	4	14	41	N	0	0	N	N
California	—	7	129	299	402	—	3	12	154	174	—	0	1	1	1
Hawaii	—	0	2	11	18	—	0	0	—	—	N	0	0	N	N
Oregon†	—	3	9	156	112	—	0	4	13	12	—	0	1	3	2
Washington	2	6	169	368	259	—	0	0	—	—	N	0	0	N	N
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	3	1	5	59	47	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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* Incidence data for reporting year 2008 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Salmonellosis					Shiga toxin-producing E. coli (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	543	828	2,110	39,203	41,817	73	85	249	4,560	4,375	313	413	1,227	17,172	16,273
New England	1	19	462	1,595	2,131	—	3	52	212	299	—	2	36	150	232
Connecticut	—	0	433	433	431	—	0	49	49	71	—	0	35	35	44
Maine§	1	3	8	132	127	—	0	3	22	39	—	0	6	21	14
Massachusetts	—	14	52	741	1,235	—	1	11	80	135	—	2	5	78	145
New Hampshire	—	3	10	125	159	—	0	3	30	34	—	0	1	3	5
Rhode Island§	—	1	8	92	101	—	0	3	8	7	—	0	1	10	21
Vermont§	—	1	7	72	78	—	0	3	23	13	—	0	1	3	3
Mid. Atlantic	46	86	166	4,466	5,486	4	7	192	561	483	12	40	96	2,029	713
New Jersey	—	13	30	510	1,144	—	0	4	26	110	—	9	38	690	157
New York (Upstate)	23	25	73	1,255	1,310	4	2	188	393	188	12	9	35	533	148
New York City	4	21	53	1,161	1,211	—	1	5	52	47	—	11	35	626	248
Pennsylvania	19	26	78	1,540	1,821	—	1	8	90	138	—	3	65	180	160
E.N. Central	41	87	180	4,272	5,431	6	11	66	791	685	73	70	145	3,268	2,581
Illinois	—	22	67	1,021	1,824	—	1	8	81	128	—	16	29	704	636
Indiana	19	9	53	564	612	—	1	14	84	93	10	11	83	565	126
Michigan	2	17	38	794	872	1	2	39	201	109	—	2	7	124	78
Ohio	18	24	65	1,168	1,210	5	3	17	185	151	63	26	76	1,490	1,103
Wisconsin	2	15	50	725	913	—	4	18	240	204	—	9	39	385	638
W.N. Central	14	48	126	2,478	2,590	1	12	57	738	726	3	16	39	781	1,715
Iowa	—	8	15	365	443	—	2	20	190	171	—	3	11	135	90
Kansas	3	7	25	405	381	—	0	7	46	50	1	0	5	51	24
Minnesota	1	13	70	649	617	—	3	21	185	218	—	5	25	276	221
Missouri	10	13	51	682	705	1	2	9	133	146	1	4	20	195	1,230
Nebraska§	—	4	13	207	249	—	1	28	139	87	1	0	3	11	26
North Dakota	—	0	35	42	42	—	0	20	3	8	—	0	15	37	3
South Dakota	—	2	11	128	153	—	1	4	42	46	—	0	9	76	121
S. Atlantic	219	263	456	10,735	10,828	12	13	50	715	616	38	57	149	2,686	4,104
Delaware	1	2	9	140	131	—	0	1	10	14	—	0	1	7	10
District of Columbia	—	1	4	46	53	—	0	1	11	—	—	0	3	13	18
Florida	147	102	174	4,606	4,293	2	2	18	138	134	12	15	75	729	2,031
Georgia	37	37	86	2,030	1,833	—	1	7	82	89	19	21	48	978	1,444
Maryland§	7	12	35	668	841	2	2	9	112	76	4	1	5	73	101
North Carolina	20	22	228	1,238	1,390	7	1	12	99	124	—	3	27	199	94
South Carolina§	6	21	55	979	1,033	1	0	4	38	12	3	9	32	491	172
Virginia§	1	19	49	883	1,075	—	3	25	196	149	—	4	13	180	170
West Virginia	—	3	25	145	179	—	0	3	29	18	—	0	61	16	64
E.S. Central	29	56	136	3,053	3,148	6	5	21	260	301	21	39	123	1,693	2,604
Alabama§	—	15	47	834	865	—	1	17	57	63	1	8	24	354	660
Kentucky	16	9	18	435	525	1	1	7	93	117	—	4	24	244	461
Mississippi	1	13	57	964	988	1	0	2	6	6	—	6	70	287	1,205
Tennessee§	12	16	55	820	770	4	2	7	104	115	20	17	44	808	278
W.S. Central	90	104	894	4,912	4,612	4	5	25	239	237	126	88	748	3,997	2,058
Arkansas§	8	12	40	715	762	1	1	3	41	42	10	9	27	510	80
Louisiana	—	17	49	895	904	—	0	1	2	10	—	10	25	537	467
Oklahoma	14	16	72	743	580	—	0	19	45	16	1	3	32	155	118
Texas§	68	41	794	2,559	2,366	3	4	11	151	169	115	58	702	2,795	1,393
Mountain	26	56	109	2,796	2,477	4	9	36	527	551	24	18	54	1,020	866
Arizona	11	19	45	981	901	1	1	5	64	101	18	9	35	543	493
Colorado	13	12	43	634	519	1	3	17	186	150	6	2	9	116	110
Idaho§	—	3	14	162	131	2	2	15	135	123	—	0	2	13	12
Montana§	—	2	10	102	96	—	0	3	31	—	—	0	1	6	23
Nevada§	2	3	9	164	239	—	0	2	9	29	—	4	13	211	61
New Mexico§	—	6	33	448	265	—	1	6	47	39	—	1	9	96	101
Utah	—	5	17	265	258	—	1	6	51	92	—	1	4	30	34
Wyoming§	—	1	5	40	68	—	0	2	4	17	—	0	1	5	32
Pacific	77	111	399	4,896	5,114	36	8	50	517	477	16	30	82	1,548	1,400
Alaska	1	1	4	49	82	—	0	1	7	4	—	0	1	1	8
California	70	78	286	3,562	3,874	18	5	39	270	242	12	27	74	1,328	1,120
Hawaii	—	5	15	233	271	—	0	5	13	30	—	1	3	39	66
Oregon§	1	6	20	376	299	—	1	8	62	73	—	2	10	86	71
Washington	5	13	103	676	588	18	2	16	165	128	4	2	13	94	135
American Samoa	—	0	1	2	—	—	0	0	—	—	—	0	1	1	5
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	13	15	—	0	0	—	—	—	0	3	14	16
Puerto Rico	5	10	41	449	832	—	0	1	2	1	—	0	4	17	24
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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* Incidence data for reporting year 2008 are provisional.
† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Streptococcal diseases, invasive, group A					*Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max		
United States	38	96	259	4,595	4,621	32	35	166	1,427	1,567
New England	1	6	31	315	352	11	1	14	71	114
Connecticut	1	0	26	96	109	11	0	11	11	13
Maine§	—	0	3	25	25	—	0	1	2	3
Massachusetts	—	3	8	138	168	—	0	5	39	77
New Hampshire	—	0	2	26	26	—	0	1	11	11
Rhode Island§	—	0	9	18	8	—	0	2	7	8
Vermont§	—	0	2	12	16	—	0	1	1	2
Mid. Atlantic	7	18	43	896	849	5	4	19	188	276
New Jersey	—	3	11	137	156	—	1	6	55	56
New York (Upstate)	1	6	17	291	256	5	2	14	92	90
New York City	—	4	10	165	206	—	0	8	41	130
Pennsylvania	6	6	16	303	231	N	0	0	N	N
E.N. Central	6	19	42	843	873	4	6	23	238	273
Illinois	1	5	16	222	263	—	1	6	48	74
Indiana	—	2	11	119	105	1	0	14	35	18
Michigan	—	3	10	158	186	2	1	5	67	69
Ohio	5	5	14	242	204	—	1	5	54	55
Wisconsin	—	2	10	102	115	1	1	3	34	57
W.N. Central	—	5	39	343	310	1	2	16	126	89
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	5	35	30	1	0	3	18	1
Minnesota	—	0	35	154	149	—	0	13	53	47
Missouri	—	2	10	82	79	—	1	2	30	24
Nebraska§	—	1	3	39	23	—	0	3	8	16
North Dakota	—	0	5	12	18	—	0	2	8	1
South Dakota	—	0	2	21	11	—	0	1	9	—
S. Atlantic	13	22	37	989	1,127	4	6	16	264	286
Delaware	—	0	2	8	10	—	0	0	—	—
District of Columbia	—	0	4	26	17	—	0	1	2	2
Florida	7	5	11	239	287	3	1	4	59	60
Georgia	3	4	14	214	220	—	1	5	62	67
Maryland§	2	4	8	165	188	1	1	5	49	59
North Carolina	—	2	10	125	149	N	0	0	N	N
South Carolina§	—	1	5	62	90	—	1	4	46	50
Virginia§	1	3	12	118	140	—	1	6	38	41
West Virginia	—	0	3	32	26	—	0	1	8	7
E.S. Central	1	4	9	158	194	1	2	11	90	88
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	1	3	36	37	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	20	5
Tennessee§	1	3	6	122	157	1	2	9	70	83
W.S. Central	3	9	85	413	277	3	5	66	239	216
Arkansas§	—	0	2	5	17	—	0	2	6	13
Louisiana	—	0	2	15	15	—	0	2	10	33
Oklahoma	2	2	19	102	62	1	1	7	59	47
Texas§	1	6	65	291	183	2	3	58	164	123
Mountain	5	11	22	490	510	3	4	12	197	212
Arizona	—	4	9	184	192	1	2	8	100	101
Colorado	4	3	8	135	126	2	1	4	55	42
Idaho§	—	0	2	15	16	—	0	1	5	2
Montana§	N	0	0	N	N	—	0	1	4	1
Nevada§	1	0	1	12	2	N	0	0	N	N
New Mexico§	—	2	8	88	93	—	0	3	17	38
Utah	—	1	5	50	76	—	0	3	15	28
Wyoming§	—	0	2	6	5	—	0	1	1	—
Pacific	2	3	10	148	129	—	0	2	14	13
Alaska	—	1	4	36	24	N	0	0	N	N
California	—	0	0	—	—	N	0	0	N	N
Hawaii	2	2	10	112	105	—	0	2	14	13
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	12	30	4	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	14	—	0	0	—	—
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease, drug resistant†										Syphilis, primary and secondary				
	A					B									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	74	55	307	2,465	2,596	11	9	43	373	442	88	234	351	10,386	9,920
New England	48	1	49	100	104	5	0	8	13	13	7	5	13	276	242
Connecticut	48	0	44	55	55	5	0	7	5	4	—	0	6	28	30
Maine§	—	0	2	16	11	—	0	1	2	2	—	0	2	10	9
Massachusetts	—	0	0	—	2	—	0	0	—	2	5	4	11	199	145
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	2	19	26
Rhode Island§	—	0	3	16	19	—	0	1	4	3	—	0	5	13	29
Vermont§	—	0	2	13	17	—	0	1	2	2	2	0	5	7	3
Mid. Atlantic	1	4	13	211	143	—	0	2	20	26	16	32	51	1,498	1,364
New Jersey	—	0	0	—	—	—	0	0	—	—	—	4	10	186	197
New York (Upstate)	—	1	6	56	48	—	0	2	6	9	1	3	13	119	124
New York City	—	1	5	64	—	—	0	0	—	—	13	21	37	971	803
Pennsylvania	1	2	9	91	95	—	0	2	14	17	2	5	12	222	240
E.N. Central	6	14	54	608	677	1	2	14	87	103	12	19	33	883	782
Illinois	—	0	17	71	169	—	0	6	14	35	—	5	19	228	408
Indiana	—	2	39	179	150	—	0	11	21	24	2	2	10	121	48
Michigan	—	0	3	14	3	—	0	1	2	2	1	3	17	181	99
Ohio	6	8	17	344	355	1	1	4	50	42	8	6	15	302	171
Wisconsin	—	0	0	—	—	—	0	0	—	—	1	1	4	51	56
W.N. Central	2	3	115	141	173	—	0	9	10	38	2	8	15	345	315
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	14	17
Kansas	—	1	5	58	79	—	0	1	4	8	1	0	5	27	19
Minnesota	—	0	114	—	25	—	0	9	—	24	—	2	5	91	53
Missouri	2	1	8	77	54	—	0	1	3	2	—	5	10	204	215
Nebraska§	—	0	0	—	2	—	0	0	—	—	—	0	2	8	4
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	6	13	—	0	1	3	4	1	0	0	1	7
S. Atlantic	12	21	53	1,051	1,137	5	4	10	181	204	25	51	215	2,294	2,291
Delaware	—	0	1	3	10	—	0	0	—	2	—	0	4	14	15
District of Columbia	—	0	3	15	19	—	0	1	1	1	2	2	8	116	164
Florida	10	13	30	616	620	4	3	6	116	108	9	19	36	888	791
Georgia	2	7	23	331	423	1	1	5	53	85	—	10	175	447	443
Maryland§	—	0	2	4	1	—	0	1	1	—	—	6	14	283	292
North Carolina	N	0	0	N	N	N	0	0	N	N	1	5	19	238	291
South Carolina§	—	0	0	—	—	—	0	0	—	—	5	1	5	76	86
Virginia§	N	0	0	N	N	N	0	0	N	N	8	4	17	230	203
West Virginia	—	1	9	82	64	—	0	2	10	8	—	0	1	2	6
E.S. Central	4	5	15	247	230	—	1	4	43	33	15	21	36	996	808
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	392	333
Kentucky	3	1	6	70	24	—	0	2	12	3	—	1	7	75	53
Mississippi	—	0	5	4	51	—	0	1	1	—	6	3	19	158	106
Tennessee§	1	3	13	173	155	—	1	3	30	30	9	8	18	371	316
W.S. Central	1	2	7	74	75	—	0	2	12	9	5	39	61	1,791	1,668
Arkansas§	1	0	2	15	6	—	0	1	3	2	3	2	19	154	112
Louisiana	—	1	7	59	69	—	0	2	9	7	2	10	28	451	464
Oklahoma	N	0	0	N	N	N	0	0	N	N	—	1	5	54	56
Texas§	—	0	0	—	—	—	0	0	—	—	—	25	48	1,132	1,036
Mountain	—	1	7	31	54	—	0	2	5	13	—	9	22	402	461
Arizona	—	0	0	—	—	—	0	0	—	—	—	5	17	199	253
Colorado	—	0	0	—	—	—	0	0	—	—	—	2	7	90	47
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	2	6	1
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	3	—	4
Nevada§	N	0	0	N	N	N	0	0	N	N	—	1	6	68	98
New Mexico§	—	0	1	2	—	—	0	0	—	—	—	1	4	36	37
Utah	—	0	7	27	38	—	0	2	5	11	—	0	2	—	17
Wyoming§	—	0	1	2	16	—	0	1	—	2	—	0	1	3	4
Pacific	—	0	1	2	3	—	0	1	2	3	6	43	65	1,901	1,989
Alaska	N	0	0	N	N	N	0	0	N	N	—	0	1	1	7
California	N	0	0	N	N	N	0	0	N	N	3	38	59	1,711	1,830
Hawaii	—	0	1	2	3	—	0	1	2	3	—	0	2	16	7
Oregon§	N	0	0	N	N	N	0	0	N	N	3	0	3	23	16
Washington	N	0	0	N	N	N	0	0	N	N	—	3	9	150	129
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	4
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	2	3	11	143	147
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	269	575	1,660	23,216	34,510	—	1	80	604	1,222	—	2	84	597	2,396
New England	8	11	68	455	2,242	—	0	2	6	5	—	0	1	3	6
Connecticut	—	0	38	—	1,278	—	0	2	5	2	—	0	1	3	2
Maine¶	—	0	14	—	307	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	1	—	—	0	0	—	3	—	0	0	—	3
New Hampshire	3	6	18	226	328	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	1	1	—	—	0	0	—	1
Vermont¶	5	6	17	228	329	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	47	49	80	2,030	4,305	—	0	8	45	22	—	0	5	19	11
New Jersey	N	0	0	N	N	—	0	1	3	1	—	0	1	4	—
New York (Upstate)	N	0	0	N	N	—	0	5	23	3	—	0	2	7	1
New York City	N	0	0	N	N	—	0	2	8	13	—	0	2	6	5
Pennsylvania	47	49	80	2,030	4,305	—	0	2	11	5	—	0	1	2	5
E.N. Central	92	135	336	5,788	9,770	—	0	7	43	112	—	0	5	22	65
Illinois	9	17	63	978	994	—	0	4	11	62	—	0	2	8	38
Indiana	—	0	222	—	222	—	0	1	2	14	—	0	1	1	10
Michigan	27	58	154	2,436	3,613	—	0	4	11	16	—	0	2	6	1
Ohio	55	48	128	2,005	4,002	—	0	3	16	13	—	0	2	3	10
Wisconsin	1	3	36	369	939	—	0	1	3	7	—	0	1	4	6
W.N. Central	12	22	145	1,022	1,396	—	0	6	43	249	—	0	23	168	739
Iowa	N	0	0	N	N	—	0	3	5	12	—	0	1	4	18
Kansas	6	6	37	359	495	—	0	2	6	14	—	0	4	25	26
Minnesota	—	0	0	—	—	—	0	2	3	44	—	0	6	18	57
Missouri	6	10	51	594	822	—	0	3	11	61	—	0	1	7	16
Nebraska¶	N	0	0	N	N	—	0	1	5	21	—	0	8	44	142
North Dakota	—	0	140	49	—	—	0	2	2	49	—	0	12	41	320
South Dakota	—	0	5	20	79	—	0	5	11	48	—	0	6	28	160
S. Atlantic	28	92	173	4,098	4,634	—	0	3	13	43	—	0	3	13	39
Delaware	—	1	5	43	45	—	0	0	—	1	—	0	1	1	—
District of Columbia	—	0	3	22	27	—	0	0	—	—	—	0	0	—	—
Florida	14	28	87	1,437	1,134	—	0	2	2	3	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	1	3	23	—	0	1	4	27
Maryland¶	N	0	0	N	N	—	0	2	7	6	—	0	2	7	4
North Carolina	N	0	0	N	N	—	0	0	—	4	—	0	0	—	4
South Carolina¶	4	15	66	751	978	—	0	0	—	3	—	0	0	—	2
Virginia¶	—	24	81	1,229	1,408	—	0	0	—	3	—	0	1	1	2
West Virginia	10	13	66	616	1,042	—	0	1	1	—	—	0	0	—	—
E.S. Central	8	18	101	1,017	549	—	0	9	52	74	—	0	12	83	96
Alabama¶	8	17	101	1,004	547	—	0	3	11	17	—	0	3	10	7
Kentucky	N	0	0	N	N	—	0	1	3	4	—	0	0	—	—
Mississippi	—	0	2	13	2	—	0	6	32	48	—	0	10	67	83
Tennessee¶	N	0	0	N	N	—	0	1	6	5	—	0	2	6	6
W.S. Central	61	147	886	7,004	9,152	—	0	7	56	268	—	0	8	55	156
Arkansas¶	—	10	38	514	675	—	0	2	8	13	—	0	0	—	7
Louisiana	—	1	10	69	108	—	0	2	9	27	—	0	6	27	12
Oklahoma	N	0	0	N	N	—	0	1	2	59	—	0	1	5	47
Texas¶	61	143	852	6,421	8,369	—	0	6	37	169	—	0	4	23	90
Mountain	11	37	105	1,690	2,399	—	0	12	90	288	—	0	23	180	1,039
Arizona	—	0	0	—	—	—	0	10	53	49	—	0	8	44	46
Colorado	11	15	43	762	968	—	0	4	13	99	—	0	12	64	477
Idaho¶	N	0	0	N	N	—	0	1	3	11	—	0	6	30	120
Montana¶	—	6	27	278	365	—	0	0	—	37	—	0	2	5	165
Nevada¶	N	0	0	N	N	—	0	2	9	2	—	0	3	7	10
New Mexico¶	—	4	22	185	356	—	0	2	6	39	—	0	1	3	21
Utah	—	10	55	455	676	—	0	2	6	28	—	0	4	19	42
Wyoming¶	—	0	4	10	34	—	0	0	—	23	—	0	2	8	158
Pacific	2	2	8	112	63	—	0	36	256	161	—	0	24	154	245
Alaska	2	1	5	60	35	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	36	252	154	—	0	19	140	226
Hawaii	—	1	6	52	28	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	2	3	7	—	0	4	13	19
Washington	N	0	0	N	N	—	0	1	1	—	—	0	1	1	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	2	17	62	229	—	0	0	—	—	—	0	0	—	—
Puerto Rico	4	7	20	378	661	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.
§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending November 15, 2008 (46th week)

Reporting area	All causes, by age (years)						P&I†
	All Ages	≥65	45–64	25–44	1–24	<1	Total
New England	494	353	100	29	3	9	30
Boston, MA	148	102	30	10	2	4	12
Bridgeport, CT	34	26	5	3	—	—	3
Cambridge, MA	19	15	4	—	—	—	—
Fall River, MA	27	22	2	3	—	—	5
Hartford, CT	39	27	8	1	1	2	3
Lowell, MA	20	14	5	1	—	—	—
Lynn, MA	10	7	2	1	—	—	—
New Bedford, MA	16	11	4	1	—	—	—
New Haven, CT	U	U	U	U	U	U	U
Providence, RI	57	42	12	2	—	1	4
Somerville, MA	3	2	1	—	—	—	—
Springfield, MA	40	24	12	3	—	1	1
Waterbury, CT	27	22	4	1	—	—	2
Worcester, MA	54	39	11	3	—	1	—
Mid. Atlantic	1,871	1,341	381	95	28	25	101
Albany, NY	45	32	11	2	—	—	2
Allentown, PA	31	24	4	3	—	—	1
Buffalo, NY	100	77	14	5	2	2	12
Camden, NJ	26	16	5	3	—	2	2
Elizabeth, NJ	20	16	4	—	—	—	—
Erie, PA	31	23	6	2	—	—	2
Jersey City, NJ	19	15	4	—	—	—	2
New York City, NY	868	614	181	54	10	9	39
Newark, NJ	48	18	21	2	2	4	3
Paterson, NJ	15	9	5	1	—	—	2
Philadelphia, PA	149	97	37	9	3	3	6
Pittsburgh, PA§	55	34	17	1	3	—	2
Reading, PA	32	23	6	3	—	—	1
Rochester, NY	150	130	12	1	5	2	10
Schenectady, NY	21	19	2	—	—	—	1
Scranton, PA	25	20	4	1	—	—	2
Syracuse, NY	181	136	37	4	2	2	11
Trenton, NJ	16	6	6	2	1	1	1
Utica, NY	21	15	4	2	—	—	—
Yonkers, NY	18	17	1	—	—	—	2
E.N. Central	1,954	1,312	445	118	45	34	110
Akron, OH	48	32	9	3	—	4	5
Canton, OH	35	26	7	2	—	—	6
Chicago, IL	168	88	60	11	8	1	22
Cincinnati, OH	110	70	25	8	2	5	5
Cleveland, OH	260	191	53	6	3	7	14
Columbus, OH	196	130	45	12	4	5	6
Dayton, OH	121	96	16	8	—	1	9
Detroit, MI	174	93	56	17	6	2	4
Evansville, IN	41	27	14	—	—	—	4
Fort Wayne, IN	68	50	17	1	—	—	2
Gary, IN	19	13	4	1	1	—	—
Grand Rapids, MI	49	29	11	4	3	2	2
Indianapolis, IN	204	112	48	28	11	5	9
Lansing, MI	43	33	8	1	1	—	2
Milwaukee, WI	94	69	18	4	1	2	5
Peoria, IL	45	33	9	1	2	—	6
Rockford, IL	47	35	7	4	1	—	—
South Bend, IN	62	50	6	5	1	—	1
Toledo, OH	101	72	26	2	1	—	4
Youngstown, OH	69	63	6	—	—	—	4
W.N. Central	550	371	126	27	11	14	36
Des Moines, IA	46	28	14	2	1	1	2
Duluth, MN	33	25	7	1	—	—	2
Kansas City, KS	21	14	6	1	—	—	2
Kansas City, MO	68	40	18	8	2	—	1
Lincoln, NE	49	46	1	1	—	1	4
Minneapolis, MN	62	39	10	5	4	4	9
Omaha, NE	78	65	11	2	—	—	6
St. Louis, MO	68	38	25	3	1	1	3
St. Paul, MN	63	40	14	2	2	5	3
Wichita, KS	62	36	20	2	1	2	4
S. Atlantic	1,046	660	254	77	23	31	61
Atlanta, GA	88	56	17	8	4	3	3
Baltimore, MD	112	62	30	12	4	4	10
Charlotte, NC	115	67	34	9	3	2	8
Jacksonville, FL	159	103	37	14	2	3	13
Miami, FL	91	62	19	7	2	1	8
Norfolk, VA	41	29	8	2	1	1	1
Richmond, VA	56	29	16	6	3	2	3
Savannah, GA	47	35	12	—	—	—	1
St. Petersburg, FL	37	29	7	—	—	1	2
Tampa, FL	196	132	44	13	1	6	11
Washington, D.C.	98	51	29	6	3	8	1
Wilmington, DE	6	5	1	—	—	—	—
E.S. Central	848	567	202	41	21	17	75
Birmingham, AL	125	83	32	7	3	—	15
Chattanooga, TN	81	63	12	1	2	3	4
Knoxville, TN	113	83	21	3	4	2	16
Lexington, KY	50	39	10	1	—	—	3
Memphis, TN	141	92	36	4	7	2	13
Mobile, AL	116	74	28	8	3	3	9
Montgomery, AL	58	36	17	5	—	—	5
Nashville, TN	164	97	46	12	2	7	10
W.S. Central	1,477	971	327	107	38	34	73
Austin, TX	84	63	16	3	2	—	4
Baton Rouge, LA	49	40	5	3	1	—	—
Corpus Christi, TX	51	40	8	3	—	—	3
Dallas, TX	190	110	49	18	7	6	9
El Paso, TX	96	63	22	7	2	2	8
Fort Worth, TX	122	76	37	4	2	3	5
Houston, TX	424	269	100	31	12	12	13
Little Rock, AR	67	39	19	5	1	3	1
New Orleans, LA¶	U	U	U	U	U	U	U
San Antonio, TX	222	151	38	22	5	6	19
Shreveport, LA	64	38	17	4	3	2	3
Tulsa, OK	108	82	16	7	3	—	8
Mountain	915	606	202	63	24	20	52
Albuquerque, NM	93	53	26	7	2	5	4
Boise, ID	40	27	8	2	2	1	2
Colorado Springs, CO	62	40	19	2	—	1	2
Denver, CO	80	54	14	4	5	3	6
Las Vegas, NV	249	149	71	22	5	2	19
Ogden, UT	37	26	10	1	—	—	2
Phoenix, AZ	104	70	16	9	4	5	4
Pueblo, CO	29	25	2	2	—	—	2
Salt Lake City, UT	103	67	20	11	4	1	8
Tucson, AZ	118	95	16	3	2	2	3
Pacific	1,484	996	342	82	35	29	138
Berkeley, CA	13	6	4	1	—	2	—
Fresno, CA	101	73	16	8	2	2	9
Glendale, CA	30	26	3	1	—	—	3
Honolulu, HI	67	50	11	2	2	2	4
Long Beach, CA	49	33	12	3	1	—	8
Los Angeles, CA	241	137	60	24	12	8	31
Pasadena, CA	20	13	5	1	—	1	2
Portland, OR	93	51	35	3	1	3	11
Sacramento, CA	198	140	43	10	4	1	20
San Diego, CA	140	101	31	5	2	1	13
San Francisco, CA	85	57	23	3	1	1	14
San Jose, CA	158	124	23	7	1	3	10
Santa Cruz, CA	21	12	7	2	—	—	2
Seattle, WA	101	53	34	7	2	5	2
Spokane, WA	64	46	14	1	3	—	4
Tacoma, WA	103	74	21	4	4	—	5
Total**	**10,639**	**7,177**	**2,379**	**639**	**228**	**213**	**676**

U: Unavailable. —:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of >100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

** Total includes unknown ages.

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